

Remediation Plan for Section 4

(Oiled area between the Railroad and the Ocean)

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FOSC - EPA	<u>Steve Deeney</u>	DATE <u>5/30/15</u>
SOSC - CADFW	<u>[Signature]</u>	DATE <u>5-30-15</u>
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RPIC - PAAP	<u>[Signature]</u>	DATE <u>5/30/15</u>

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## Remediation Plan for Section 4

### (Oiled area between the Railroad and the Ocean)

**Approach:** This plan covers excavation, removal and disposal of the contaminated soils and debris from the edge of the railroad property to the vertical face of the spill area, otherwise known as Section 4. The excavation will be done with heavy equipment, vacuum loading and hand digging. All heavy equipment and disposal bins will be either moved over the rail line by crane, ~~or by a temporary crossing (which will be constructed if necessary).~~

Definition of the work area: Assume the visual stained soil defines the footprint. Make adjustments as the excavation is conducted.

Trees: Hand excavate the area within one foot of the trunk. Use vacuum removal of remaining soils. Case-by-case evaluation to determine if the tree should be removed. Stumps to be left in place if at all possible.

Dig method: Track hoe/excavator to reach out and pull soils/debris toward the excavator. Areas too unstable/steep for heavy equipment will utilize vacuum and hand shovel methods. Removed spoils will be transferred to a roll-off bin by a "bobcat" type front end loader. Excavated materials will be removed in 8 inch lifts. All work will be directly overseen by cultural and archeological monitors to ensure that any items of concern are immediately identified, protected, and handled properly. Areas of concern will be cordoned off with a six foot buffer zone and protected by plywood perimeter walls if necessary. Any remains will be referred to the proper authorities. Cultural artifacts needing decontamination will be taken to a cleaning station provided by the State Parks. Artifacts will be returned to the original location before backfilling the excavation. Backfill material selection will be determined by State Parks and concurred upon by Tribal/cultural representatives and EPA.

**Equipment:** Anticipated equipment includes: one large crane, an excavator with 18" blade bucket, a "Bobcat" type front end loader, and several roll-off bins with end doors. All heavy equipment will utilize rubber tracks to minimize impact to the areas of concern.

**Waste/spoils management:** All materials will be placed into roll-off bins and handled in accordance with the Waste Management Plan used at the source of the spill.

**Backfill:** Backfill materials will meet the requirements of the California Park Service and be placed as directed by a representative of the

**Safety:** Work will be done in compliance with the requirements of the Site Safety Plan. The right lane of southbound Highway 101 lane will be closed to ensure space for all activities. UP Railroad will be notified through its contractor Arcadis of the work. A flagmen will be utilized at all times. A Safety Officer(s) will be assigned to the site.

#### Plans referenced in this document:

Site Safety Plan (existing) — USE OF SAFETY HARDWARES NEAR UNSTABLE AREAS  
Highway Lane Closure Plan (existing)  
ft Plan (under development)  
Temporary Crossing Plan (will be written if needed)  
Waste Management Plan (existing)



DEPT WOODS - MAIN BREAK ORIGIN

NOT CASE

101 N

DIVIDER

101 S

BRIDGE

TALE ROAD

ON

REPAIRS  
BASIC

UNSTABLE  
HOT ZONE

MAIN FENCE

CONTAMINATED ZONE  
NOT REPAIRS  
200-250 YDS

APPROX 20 YDS

BRUSH

BRUSH

HOT ZONE  
UNSTABLE  
VEGETATION  
BASIC

UNSTABLE  
HOT ZONE  
AND OF HARD GREEN VEGETATION BARRIER

UNSTABLE GROUND / STEEP CLIFF EDGE

BEACH

BEACH

ROCK



Cleanup Sign-off Guidelines  
Phase 1  
Refugio Incident  
May 22, 2015 version

Cleanup and Assessment: Oiled areas are being inspected by a Unified Command inspection team (SCAT team). The SCAT teams consist of representatives from the Federal On-Scene Coordinator, the California Department of Fish and Wildlife - Office of Spill Prevention and Response State On-Scene Coordinator, the Responsible Party, and other parties as required.

Shoreline inspection will be done in a phased approach. This document outlines Phase 1 actions. The objective of Phase 1 cleanup includes: gross oil removal, defined as removing oil so that it does not rub off on contact so it is not deleterious to wildlife, and removing oil such that it no longer remobilizes. Cleanup endpoints for phase 2 still need to be developed.

Inspection Phase I

The SCAT Team will inspect segments of shoreline once notified by the Operations Section Chief that removal of free oil, emulsified oil (a.k.a., mousse), and/or contaminated debris has been completed. The purpose of the inspection is to agree that free product removal by reasonable means has been completed. The SCAT team will use the **"Guidelines for Shoreline Cleanup Endpoints"** detailed below as a basis for their decisions (see below).

**"Guidelines for Shoreline Cleanup Endpoints"**

The SCAT team will determine when each shoreline segment has been cleaned to a reasonable\* degree based on minimizing risk of impact to the environment, wildlife, and preventing human contact with the spilled oil. The following guidelines provide criteria for assessing shoreline cleanup status.

**Water Surface:**

No recoverable floating oil or emulsified oil should remain on the water surface. Only small isolated patches of silver sheen may remain.

**Sand Beaches:**

Shoreline should be free of fresh oil such that it cannot remobilize. Tarballs, tar patties, oiled stranded wrack and debris that could contaminate wildlife should be removed. Oil stain on sand that does not produce sheen may be allowed to degrade naturally.

Coastal Bluff Terrace (release area; archeological constraints may require cultural data collection during excavation activities):

No oil saturated soil remains. No oil that can be remobilized remains. No pooled oil remains. Sediment should be free of liquid oil.

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**Rocks:**

No more than a coat of oil on rocks remains visible oil less than 0.1 cm thick which cannot be scrapped off (e.g., with a blade or scraper).

**Culverts (1 steel, 2 concrete, and 1 concrete/earthen):**

No more than stain remains and/or does not release free oil or sheen (a thin glistening layer of oil on surface of water) when rinsed with water.

\* *Reasonable*, for the purposes of these shoreline inspections, is defined as when the SCAT team members concur that further shoreline treatment would not yield a net environmental benefit.

This was reviewed/approved by the following:

Paul McCraw, Santa Barbara County Public Health Dept.

Jordan Stout, NOAA

Jeff Phillips, USFWS

Alexis Fransis, Ca. Dept. Parks and Recreation

Chris Myers, EPA Contractor

Thea Tyron, Regional Water Quality Control Board

FOSC - USCG

CL 5/23

FOSC - EPA

JP 5/24/15

SOSC - CAL DFW

AC 5/24/15

LOSC - SBCOEM

RT 5/24/15

RPIC - PAAP

AS 5/24/15

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